

LESSONS FROM THE DARK SIDE FROM JERRY MADDEN'S "100 LESSONS LEARNED FOR PROJECT MANAGERS"

DURING HIS DISTINGUISHED 37-YEAR CAREER AT NASA, Madden synthesized in-the-trenches experience into his "100 Lessons Learned for Project Managers." Eventually, the list grew to include 128 lessons, but the name never changed, and the collection of mostly serious, sometimes funny observations about project management remains widely recognized—and often quoted—inside and outside the Agency.

Among the wisdom captured in Madden's lessons, were words of warning. Madden identified both the common pitfalls of project life and the best ways to avoid taking the plunge. Never one to shy away from difficult subjects, Madden's lessons talk frankly about project management's "f" word: failure. Here we excerpt fifteen of Madden's lessons that deal with project challenges.

[#90] The seeds of problems are laid down early.... Review of most failed projects or of project problems indicates that the disasters were well planned to happen from the start.

[#122] Too much cost data on a proposal can blind you to the real risks or forgotten items.

[#126] Make sure everyone knows what the requirements are and understands them. Much easier to say than do.... You have to have the right people look at requirements. A bunch of managers and salesmen nodding agreement to requirements should not make you feel safe.

[#3] The source of most problems is people but damned if they will admit it. Know the people working on your project, so you know what the real weak spots are.

[#20] Managers who rely on the paperwork to do the reporting of activities are known failures.

[#91] A comfortable project manager is one waiting for his next assignment or one on the verge of failure. Security is not normal to project management.

[#110] Though most of us in our youth have heard the poem that states "for want of a nail the race was lost," few of us realize that most space failures have a similar origin. It is the commonplace items that tend to be overlooked and thus do us in. The tough and difficult tasks are normally done well. The simple and easy tasks seem to be the ones done sloppily.

[#44] Mistakes are all right, but failure is not. Failure is just a mistake you can't recover from; therefore, try to create contingency plans and alternate approaches for the items of plans that have high risk.

[#54] All problems are solvable in time, so make sure you have enough schedule contingency—if you don't, the next project manager that takes your place will.

[#31] Redundancy in hardware can be a fiction. We are adept at building things to be identical so that if one fails, the other will also fail. Make sure all hardware is treated in a build as if it were one of a kind and needed for mission success.

[#78] History is prologue. There has not been a project yet that has not had a parts problem despite all the qualification and testing done on parts. Time and being prepared to react are the only safeguards.

[#32] Don't be afraid to fail or you will not succeed, but always work at your skill to recover. Part of that skill is knowing who can help.

[#97] Talk is not cheap. The best way to understand a personnel or technical problem is to talk to the right people. Lack of talk at the right levels is deadly.

[#22] If you have a problem that requires the addition of people to solve, you should approach recruiting people like a cook who has under-salted, i.e., a little at a time.

[#29] In case of a failure:

- a. make a timeline of events and include everything that is known;
- b. put down known facts—check every theory against them;
- c. don't beat the data until it confesses, i.e., know when to stop trying to force-fit a scenario;
- d. do not arrive at a conclusion too rapidly. Make sure any deviation from the norm is explained — remember the wrong conclusion is prologue to the next failure;
- e. know when to stop.

LESSONS FROM THE MASTER



Les Meredith, former Director of Space Sciences, had this to say of **JERRY MADDEN** and his project do's-and-don'ts: "God only gave us Ten Commandments. Jerry has listed over a hundred instructions for a Project Manager. It is evident a lot more is expected from a Project Manager."

Madden retired from NASA in 1995 as Associate Director of Flight Projects at Goddard Space Flight Center. Considered by many of his peers to be one of NASA's premiere project managers, Madden's reputation for frank, on-target observations of project management continues to be celebrated today, as his list of lessons is handed down to a new generation of project managers.

Naturally, not all of Madden's wisdom made it into his "100 Lessons." Marty Davis, who worked under Madden at Goddard, recalls one of the unwritten lessons: "Show up early for all meetings; they may be serving doughnuts."

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